Youtube Transcript Summarizer – Web Extension

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Abstract*: YouTube has become a crucial platform for news and information, and educational videos are highly popular. However, watching long YouTube videos can be time-consuming and tedious. Many videos employ attention-grabbing tactics like misleading thumbnails and advertisements, making it difficult to find relevant information. With the increasing number of YouTube users, there is a greater chance of encountering inaccurate or misleading content due to creators' desire for views. This can waste users' time and resources*

To address this issue, a project has been developed to provide quick, precise, and informative summaries of YouTube videos. The project utilizes a hugging face transformer and a Python API to extract the video's subtitles. The transformer model then performs text summarization on the subtitles to generate a summary. This enables users to save time by reading the summarized content instead of watching the entire video.

To enhance user interaction, a Chrome extension has been created. The extension features a "summarize" button, which, when clicked, displays the summarized text of the current YouTube video being played on the Google Chrome web browser. This user-friendly approach aims to facilitate the consumption of concise video summaries and improve the overall user experience.

Keywords: YouTube, hugging face transformer, Python API, Chrome extension, informative summaries

REFERENCES

[1] Begum1, N. Musrat Sultana2, Dharma Ashrith, "YouTube Transcript Summarizer" Volume 10.

[2] S. Tharun, R. Kranthi Kumar, P. Sai Sravanth, G. Srujan Reddy, B. Akshay, "Survey on Abstractive Transcript Summarization of YouTube Videos", Volume 2.

[3] Shraddha Yadav, Arun Kumar Behra, Chandra Shekhar Sahu, Nilmani Chandrakar, "Summary and Keyword Extraction from Youtube Video Transcript", Volume 3 [4]https://huggingface.co/transformers/installation.html https://atmamani.github.io/blog/buildingrestful-apis-with-flask-in-python/

[5]https://pypi.org/project/youtube-transcript-api/ https://blog.miguelgrinberg.com/post/designing-a-restful-api-with-python-and-flask

[6]https://medium.com/swlh/parsing-rest-api-payload-and-query-parameters-with-flask-betterthan-marshmallow-aa79c889e3ca [7]https://betterprogramming.pub/the-ultimate-guide-to-building-a-chrome-extension4c01834c63ec

[8] https://developer.chrome.com/docs/extensions/mv2/